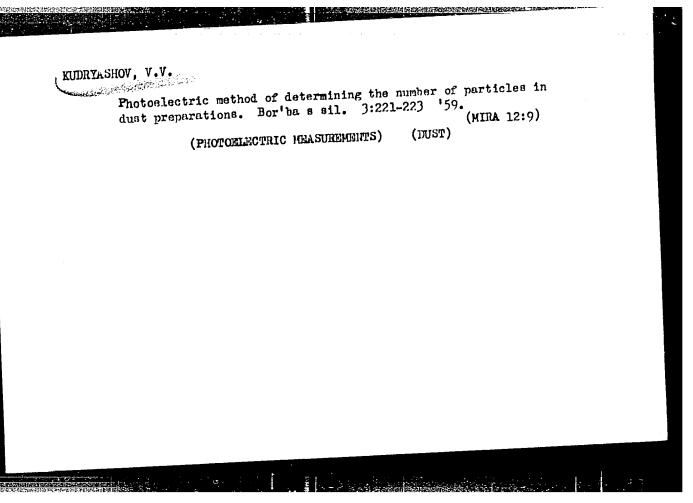VORONIN, V.N., doktor tekhn.nauk [deceased]; KUDRYASHOV, V.V.

LK-3 apparatus for taking dust samples from the air. Bor'ba
s sil. 3:213-220 '59.
(MIRA 12:9)
(DUST COLLECTORS)

KUDRYASHOV, V.V.

Photoelectric method of determining the number of particles in dust preparations. Bor'ba s sil. 3:221-223 '59.

(MIRA 12:9)

(PHOTOELECTRIC MEASUREMENTS)   (DUST)

KUDRYASHOV, V.V., kand.tekhn.nauk

Some problems in the theory and calculation of optical apparatus
for measuring dust. Sbor. rab. po silik. no.2:99-114 '60.
(MIRA 14:3)

1. Institut gornogo dela AN SSSR.
        (MINE DUSTS)   (OPTICAL INSTRUMENTS)

KUDRYASHOV, V.V., kand.takhn.nauk

Evaluation of the accuracy of indirect methods of dust control.
Sbor. rab. po silik. no.3:161-162 '61.   (MIRA 15:10)

1. Institut gornogo dela AN SSSR.
                    (Mine dusts—Measurement)

KUDRYASHOV, V.V., kand. tekhn.nauk; SKVORTSOV, A.N.

Using water to control dust at negative temperatures. Bor'ba s
sil. 5:28-37 '62.   (MIRA 16:5)

1. Institut gornogo dela imeni A.A.Skochinskogo.
                          (Mine dusts---Prevention)

KUDRYASHOV, V.V., kand.tekhn.nauk

    Preliminary coal wetting in the massif under permafrost conditions.
    Bor'ba s sil. 5:79-91 '62.   (MIRA 16:5)

    1. Institut gornogo dela imeni A.A.Skochinskogo.
        (Mine dusts—Prevention)   (Frozen ground)

KUDRYASHOV, V. V., kand. tekhn. nauk; SKVORTSOV, A. N., gornyy inzh.

Internal water tamping of holes as a means of dust control.
Ugol' 37 no.10:46-48 O '62.   (MIRA 15:10)

1. Institut gornogo dela im. A. A. Skochinskogo.

(Mine dusts)

KUDRYASHOV, V.V., kand. tekhn. nauk

Calculation of photoelectric dust meters containing photoresis-
tors. Bor'ba s sil. 6:168-179 '64   (MIRA 18:2)

1. Institut gornogo dela im. A.A. Skochinskogo.

/𝐴 𝑎𝑐𝑖 \ 𝑗 𝑐𝑖 ⁻ 𝑖𝑐 𝑦 𝑖 𝑟𝑎𝑐,

86-8-4/22

AUTHORS: Kudryashov, V. Ya, Col., Candidate of Military Science
             and Nikitin, P. G., Lt. Col.

TITLE: Combat Possibilities of Fighter Planes and Method of Their
             Determination (Boyevyye vozmozhnosti istrebiteley i metod
             ikh opredeleniya).

PERIODICAL: Vestnik Vozdushnogo Flota, 1957, Nr 8, pp.16-20 (USSR)

ABSTRACT: In order to utilize the power of fighter planes accurately,
             it is necessary to know their combat possibilities in
             execution of combat tasks in a concrete situation. However,
             there is no unity in the interpretation of the technical
             term "combat possibilities of fighter planes". According
             to the authors, this technical term should represent only
             such an expected outcome which can be achieved during the
             execution of the given task, i. e., to inflict losses on
             the aerial enemy. The rate of combat possibilities of a
             single fighter plane or a fighter group must give the
             following answer - what kind of tasks they can accomplish
             or what results can be expected from the operation of a
             single fighter plane or a fighter group in a given combat
             situation. To determine accurately the combat possibilities
Card 1/9   of fighter planes, it is necessary to take into consideration

Combat Possibilities of Fighter Planes and Method of Their Determination (Cont.)

all the factors on which these possibilities depend.
Unfortunately, at the present time, there is no such method
which would permit taking into consideration all the
possibilities. As is known, an aerial combat represents a
combination of maneuver and fire. Therefore, the possibil-
ities of destroying an aerial target depend on the favorable
conditions which are introduced for the use of fighter plane
weapons. Let us suppose that the flight speed of the enemy
jet planes is 1,200 km/hour and their ceiling - 15,000 m.
The friendly fighter planes are equipped with weapons the
salvo per second of which is greater than that of the enemy
airplane weapons. However, the performance data of friendly
fighter planes are lower than those of the enemy airplanes
(maximum speed of friendly fighters is 1,000 km/hour and
combat ceiling - 12,000 m). Now the question is whether the
fighter planes will be capable of beating off the enemy
attack at an altitude of 14,000 - 15,000 m or at lower
altitudes when the enemy flies at a maximum speed (1,200 km/hr)
In the first place, the friendly fighter planes cannot beat

Card 2/9   off the enemy attack in spite of the fact that they are

Combat Possibilities of Fighter Planes and Method of Their Determination (Cont.)

equipped with weapons of greater firepower than the enemy airplanes. Secondly, the execution of the given task will be limited, because the friendly fighters cannot use their weapons effectively. The main factors on which the achievement of fighters' superiority in an aerial combat depends, are the performance data of the airplane, namely, the maximum speed, the rate of climb, the service ceiling (prakticheskiy potolok), the time of brake and of acceleration up to the maximum speed, and the maneuverability in horizontal and vertical planes. Therefore, the superiority of a fighter plane over the aerial enemy in an aerial combat determines the possibility and the degree of the use of weapons mounted on the fighter plane. For the given conditions of gunnery, these possibilities are determined according to the firepower by taking into consideration the nature of the target, the conditions of aiming and firing, the effectiveness of ammunition, and the degree of the pilot's training. If the probability of hitting (W) and the degree of the fighter's superiority over the enemy (C) are known, the possibility of the fighter plane's destroying an aerial target (B) can be found according to the expression $B = CW$. Thus, in order to determine the

Card 3/9

86-8-4/22

Combat Possibilities of Fighter Planes and Method of Their Determination   (Cont.)

possibilities of a fighter plane to destroy aerial targets, it is necessary to know the probability of hitting and the degree of superiority of the performance data of the fighter plane over the attacked target. For example, an aerial combat takes place between two fighters the performance data of which are: F_1, the speed - 1,100 km/hour, the maximum angular speed - 9 deg/sec, and the maximum rate of climb - 60 m/sec; F_2, the speed - 1,000 km/hour, the maximum angular speed - 10 deg/sec, and the maximum rate of climb - 60 m/sec. Both fighter planes have the same tactical conditions. The given performance data show that the fighter plane F_1 has 100 km/hour greater speed than the fighter F_2, but the angular speed of fighter F_2 is greater than that of fighter F_1 at 1 deg/sec. The degree of superiority C in relation to the fighter F_1 is the following:

$$C = \frac{1100 - 1000}{1000} - \frac{10 - 9}{9} + \frac{60 - 60}{60} \approx - \frac{1}{90}$$

Card 4/9

86-8-4/22

Combat Possibilities of Fighter Planes and Method of Their Determination (Cont.)

The degree of superiority C in relation to the fighter F_2 gives the same magnitude, but with the plus sign.

These computations show that in a maneuvering aerial combat, the fighter F_2 has general superiority over the fighter F_1. But if the fighter does not take part in the maneuvering combat, the fighter F_2 cannot achieve a victory, because the fighter F_1, having greater flight speed than the fighter F_2, may avoid the effective fire of fighter F_2.

The degree of a fighter's superiority over an aerial target may exceed the unit when the transport airplane is attacked. However, the fighter's superiority over such a target does not increase the firepower, but determines only the degree of its use. If the degree of a fighter's superiority (C) over the enemy is equal to zero, the possibility of hitting the target, even at the great value of W, is also equal to zero, because $0 \times W = 0$. According to the authors, the criterion of combat possibilities of fighter planes represents their capacity to inflict a defeat which depends on the probability of hitting and on the degree of superiority of a fighter's performance data

Card 5/9

86-8-4/22

Combat Possibilities of Fighter Planes and Method of Their Determination (Cont.)

over the enemy airplane. The expected results of the fighter group action against the enemy during the execution of the given combat task can be found if the possibilities of a single fighter plane are known. If the general composition of the fighter group is denoted by N_F and the ratio of active fighters to the general composition of the group - by K, the expected results of action of this group against the aerial enemy (N) will be:

$$N = BKN_F \quad \text{or} \quad N = CWKN_F ,$$

where N is the number of destroyed enemy airplanes. According to the possible results of action and losses which must be inflicted against the enemy (N), in order to force it to refuse the execution of combat task (P_N B%), it is possible to determine the combat possibility of the fighter group in beating off the air raid of bombers. The combat possibilities of fighter group can be expressed as follows: $\frac{N}{P_N}$ % .

Card 6/9

86-8-4/22

Combat Possibilities of Fighter Planes and Method of Their Determina-
tion (Cont.)

The combat possibilities of fighter planes, e. i., the
capacity to execute a concrete combat task in beating off
the air raid of bombers, can be expressed by the function
$\frac{CWKN_F}{P_N}$, where P_N % represents the losses needed to beat
off the enemy. Having the information about the composition
of the enemy group, the number of active fighters, the
possibilities of a single fighter plane, and the losses
which must be inflicted against the enemy, it is possible
to determine the number of fighter planes which should be
used to execute the concrete combat task

$$N_F \times N = \frac{N_{pr} \times P_N}{CWK} \text{ , where } N_F \times N$$

is the number of fighters needed to execute the given task
and N_{pr} is the composition of the enemy group.

Card 7/9

86-8-4/22

Combat Possibilities of Fighter Planes and Method of Their Determination (Cont.)

On the basis of the above formula, it is possible to determine the combat possibilities of the fighter flight which would beat off an air raid of the enemy bombers. Let us suppose that the combat possibilities of each fighter plane to destroy the given type of enemy bomber corresponds to the value 0.9. Three fighter planes of the flight deliver the fire directly against the attacked target. In order to beat off the air raid, it is necessary to destroy 50% of the enemy bombers. For the given conditions, the following combat possibilities of the fighter flight are obtained:

$$\frac{0.9 \times 0.56 \times 0.75 \times 4}{0.5} = 3.$$

The obtained results show that a fighter flight composed of four planes may beat off an air raid of three enemy bombers. Thus, the suggested method for the determination of combat possibilities of fighter planes permits:

Card 8/9   a) taking into consideration such an important factor as

86-8-4/22

Combat Possibilities of Fighter Planes and Method of Their Determination   (Cont.)

       the relation of performance characteristics of airplanes, and b) determining more accurately the expected results of operation of the fighter planes.

AVAILABLE: Library of Congress

Card 9/9

26.2243

11.3950

AUTHORS: Yurova, L. N., Stepanov, S. B., Okorokov, V. V., Kudryashov, Ye. I.

TITLE: Some results of pulse measurements of the diffusion parameters of organic liquids

PERIODICAL: Atomnaya energiya, v. 12, no. 4, 1962, 331-332

TEXT: A pulsed source was used to measure the decrease constant α of thermal neutrons in $C_{12}H_{10}$ (100-250°C) and $C_{15}H_{16}$ (10-250°C). The measurements were carried out in a cylindrical tank with a Cd piston. The moderator above the piston served as an additional fast-neutron source. The geometrical parameter Ω was varied by means of the piston. $\alpha = 1/T + D\Omega - (c_D - c_T)\Omega^2$; T - life-time with respect to absorption, D - diffusion coefficient, c_D - coefficient of diffusion cooling, c_T - transport-theoretical correction; from $D = \bar{\lambda}_{tr}\bar{v}_0/3$ which was obtained from the α-measurements, λ_{tr} was calculated for each temperature, when

Card 1/2

Some results of pulse ...

S/089/62/012/004/010/014
B102/B104

assuming the thermal neutron spectrum as being Maxwellian and the mean neutron velocity $v_0 = \sqrt{2kT/m}$ (T - absolute temperature of the medium). From the curves $\bar{\lambda}_{tr} = f(v_0)$, $\bar{\lambda}_{tr} \sim v^{0.33\pm0.03}$ (diphenyl) and

$\bar{\lambda}_{tr} \sim v^{1.58\pm0.12}$ (monoisopropyl diphenyl) was obtained. $\lambda_{tr}(v)$ also differs considerably for equally structured media. For diphenyl the neutron spectrum was most similar to the Maxwellian. Nelkin's method was used to determine c_D when assuming weak dependence of λ_{tr} on the neutron energy ($\bar{\lambda}_{tr} \sim E^\alpha$, α is a free parameter): $c_D = (\alpha + 1/2)^2 \sqrt{\pi}\, D^2 \big/ v^0 M_2$, where M_2 is the second moment of neutron energy. The calculated values agree with the measured ones within the limits of error. There are 2 non-Soviet references. The reference to the English-language publication reads as follows: M. Nelkin. J. Nucl. Energy, 8, 48 (1958).

SUBMITTED: July 14, 1961

Card 2/2

L 25440-66   EPF(n)-2/EWA(h)/EWT(m)/ETC(f)/EWG(m)/EWP(t)   WW/JD/JG/GS
ACC NR: AT6005817   SOURCE CODE: UR/0000/65/000/000/0085/0104

AUTHORS: Shikhov, S. B.; Ignatov, A. A.; Kudryashov, Ye. I.

ORG: none

TITLE: Influence of the method of unloading the side screen of a fast breeder reactor on its doubling time

SOURCE: Moscow. Inzhenerno-fizicheskiy institut. Nekotoryye voprosy fiziki i tekhniki yadernykh reaktorov (Some problems in the physics and engineering of nuclear reactors). Moscow, Atomizdat, 1965, 85-104

TOPIC TAGS: breeder reactor, nuclear reactor characteristic, nuclear material processing,   uranium, plutonium

ABSTRACT: By calculating theoretically the amount of secondary fuel produced in the screen of a breeder reactor always present in the reactor between the loading-unloading cycles (defined as the 'frozen-in' fuel), the authors show that the doubling period of the total amount of fissioning material in the reactor depends strongly on the

  Card   1/2

L. 25440-66

ACC NR: AT6005817   2

sequence with which the screen breeder zone is replaced with fresh
stacks of raw material. Three methods of fuel replacement are con-
sidered: 1) Moving screen, in which the innermost raw uranium blocks,
in which plutonium is formed first, are removed first and the outer
blocks are continuously moved inward. 2) Stationary screen, where
each block is replaced by a fresh one after a prescribed norm of
plutonium is produced in it, regardless of its position in the reactor
and without rearrangement of the blocks. 3) Two-zone moving screen,
which is essentially a combination of the first two methods. The
over-all rate of breeding and the breeding in the individual concen-
tric layers of the reactor are calculated for the first method and
expressions are obtained for the distribution of the plutonium over
the reactor in the other two. The influence of the amount of frozen-
in plutonium on the doubling period, defined as the time elapsed be-
fore the newly produced excess fuel equals the total amount of fuel
in the cycle, is determined and an equation is derived to establish
the reloading method giving the best results. It is shown that the
method of reloading becomes important the larger the norm of accumu-
lation of plutonium in the raw uranium and the smaller the size of
the active zone. Orig. art. has: 3 figures and 45 formulas.

SUB CODE: 18 / SUBM DATE: 05Jun65/

Card   2/2 cc

ACC NR: AT6036599   SOURCE CODE: UR/0000/66/000/000/0234/0236

AUTHOR: Kudryashov, Ye. I.; Marennyy, A. M.; Popov, V. I.; Portman, A. I.; Solyanov, B. I.; Sychkov, M. A.

ORG: none

TITLE: A method of irradiating biological objects on a multicharge ion accelerator [Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24-27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 234-236

TOPIC TAGS: ion accelerator, synchrocyclotron, ionizing radiation biologic effect, radiation tissue effect

ABSTRACT:
RBE values for heavy ions can be determined from experiments with irradiation of tissue and plant cultures. RBE determinations are necessary for calculations of the total dose received by cosmonaut and life-support system on a long spaceflight. At present the RBE values for heavy ions are set at 20—30, indicating the great radiation hazard presented by galactic rays.

Card 1/3

ACC NR: AT6036599

Experiments were conducted on the U-150 cyclotron at Dubna, which produces beams of accelerated carbon, nitrogen, and oxygen atoms with energies around 7 Mev per nucleon with currents up to 10 μamp. Irradiation of biological objects in these direct beams is impossible, since the dose power would be measured in megarads. In order to decrease the dose power to 2—5 rad/sec, the required level for irradiation of biological objects, a special device was used. The ion flux was decreased 10^6 times by the process of scattering heavy ions on gold foil (1—2 μ thick) fixed in a vacuum chamber. The angle between beams of primary and scattered ions reached 90°. This arrangement ensured convenience of operation and the necessary uniformity of the radiation field with respect to intensity and ion energy.

A special collimator (consisting of a system of concentric sleeves) was used to further equalize the radiation field. The collimator produces some decrease in the dose power received by the biological object, which can be compensated by increasing ion currents. Irradiation monitoring was accomplished with a special ion current integrator.

During ion scattering on gold foil secondary electrons are generated, which have a spectrum with a maximum in the region of 3 kev for a 60 Mev

Card 2/3

ACC NR: AT6036599

energy of the incident ion. A mylar film 5 μ thick which divided the vacuum part of the chamber from atmospheric air was used for electron absorption. Calculations showed that the contribution of secondary radiation to the total dose absorbed by the biological object did not exceed 1%.

Since the experimental biological objects were not more than 5—10 μ thick, their absorbed dose was calculated by ionization losses in polyethylene, a substance with braking ability similar to moist tissue.

/W. A. No. 22; ATD Report 66-116/

SUB CODE: 06,20 / SUBM DATE: 00May66

Card 3/3

KUDRYASHOV, Yu.I., laureat Stalinskoy premii; DOLOTOV, M.N.; SAVEL'YEV, I.P.

[UKT-] coal cutter-loader for flat seams] Ugol'nyi kombain UKT-1 dlia tonkikh pologopadaiushchikh plastov. Moskva, Ugletekhizdat, 1953. 207 p.
(MLRA 7:6)

(Coal mining machinery)

KUDRYASHOV, Yevgeniy Ivanovich, DOLOTOV, Mikhail Nikitovich, SAVEL'YEV, Ivan
Petrovich, SHOROKHOVA, A.V.,otv.red.; LOMILINA, L.N., tekhn.red.

[UKT-2 and UKT-2m cutter-loaders] Ugol'nye kombainy UKT-2 i UKT-2m.
Moskva, Ugletekhizdat, 1958. 191 p.   (MIRA 11:8)
            (Coal mining machinery)

KUDRYASHOV, Yevgeniy Ivanovich; GRIGOR'YAN, Khoren Mikhailovich; SOKOLOV, A.I., otv. red.; ABARBARCHUK, F.I., red. izd-va; LOMILINA, L.N., tekhn. red.

[KTsT coal cutter-loader] Ugol'nyi kombain KTsT. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po gornomu delu, 1961. 81 p.
(MIRA 14:10)
(Coal mining machinery)

KUDRYASHOV, Ye.V.; FINKEL'SHTEYN, Sh.D.

Present status of the gas industry of the Tajik S.S.R. and prospects for its development. Gaz. delo no.1:21-30 '63.
(MIRA 16:8)

1. Sredneaziatskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta prirodnykh gazov.
(Tajikistan—Gas, Natural)

ZHUKOVSKIY, L.G.; KUDRYASHOV, Ye.V.

Gazli, a new large oil-and-gas field in the Uzbek S.S.R. Sov.
geol. 1 no.11:154-155 N '58.   (MIRA 12:4)

1. Trest Uzbekneftegasorazvedka Glavgeologii Uzbekskoy SSR.
              (Uzbekistan--Oil fields)

KUDRYASHOV, Ye.V.; FINKEL'SHTEYN, Sh.D.; KUZ'MUK, L.G.

Kichik-Bel', a new oil field in Tajikistan. Neftegaz. geol. o
geofiz. no.8:11-13 '63.   (MIRA 17:3)

1. Sredneaziatskiy filial Vsesoyuznogo nauchno-issledovatel'skogo
instituta prirodnogo gaza i Tadzhikskoye geologicheskoye upravleniye.

BIBADAGLY , V.A.; RAVIKOVICII, Kh.A.; KUDRYASHOV, Ye.V.; ATAULLIN,
     k.l.: Prinimali uchastiye· GONCHAROV, E.S.; IONINA, I.N.,
     ved. red.

[Lithology, tectonics, and oil and gas potentials of the
northeastern margin of the Fergana Depression] Litologiia,
tektonika i neftegazonostost' neogenovykh otlozhenii
severo-vostochnogo borta Ferganskoi depressii. [By] V.A.
Bibadagly i dr. Leningrad, Nedra, 1964. 181 p.
                        (MIRA 18:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut priro-
nykh gazov. Sredneaziatskiy filia .

KUDRYASHOV, Yu., master sporta

The rifleman and psychology. Voen. znan. 42 no.1:38 Ja '66.
(MIRA 19:1)

KUDRYASHOV, Yu., master sporta

The rifleman and psychology. Voen. znan. 42 no.2:38-39 F '66.
                                                              (MIRA 19:1)

The distribution and proportion of thiamin: . . . . . . Tatarskava, Yu. B. Audryashov, and P. S. . . . . . Bakh Inst. Biochem: . . Acad Sci U. S. R. . . M. . . . . Biokhimiya 19, 129-3(1974) —The presence of thi. . . . . in the representative fauna of the White Sea was studied in a manner similar to the thiaminase study previously carried out on the representative fauna of the Black Sea . . . . . 46. 1964). Thiaminase was generally present in . . . . . fauna, and it is suggested that where . . . fish . . . . is animal food (in the form of meal) the thiamin . . . . . . destroyed to avoid the possible development of . . . . Since microorganisms generating thiaminase were first isolated from human subjects suffering from B₁ avitaminosis, it is suggested that a thorough study of microorganisms, especially pathogenic, be made to det. their thiaminase generating potentialities.   B. S. Levine

KUDRBYASHOV, Yu. B.

The nature and the character of the accumulation of .

hemolytic factor which appears in rat liver irradiated with
x-rays. Yu. B. Kudryashov ...
S.S.S.R. [09. 515-18(1956) ...
...ceived 500 to 1000 r. of radiation ...
for the examin. of the ...
action appears at moderate ...
may result and is represed in ...
action appears shortly ...
when there is a max lethal out...
- the group. The factor is not destroyed ...
activity of the boiled ext. is conc... by centrifuging ...
solid fraction, being ads_cbed by the protein ...
principle has the properties of unsatd. ...mate acids and is
related to tissue hemo... in ...

BURLAKOVA, Ye.V.; KUDRYASHOV, Yu.B.

> Dosage-mortality in rats given gamma irradiation. Nauch.dokl.vys.
> shkoly; biol.nauki   no.2:95-100   '59.   (MIRA 12:6)
>
> 1. Rekomendovana kafedroy biofiziki Moskovskogo gosudarstvennogo
> universiteta im. M.V. Lomonosova.
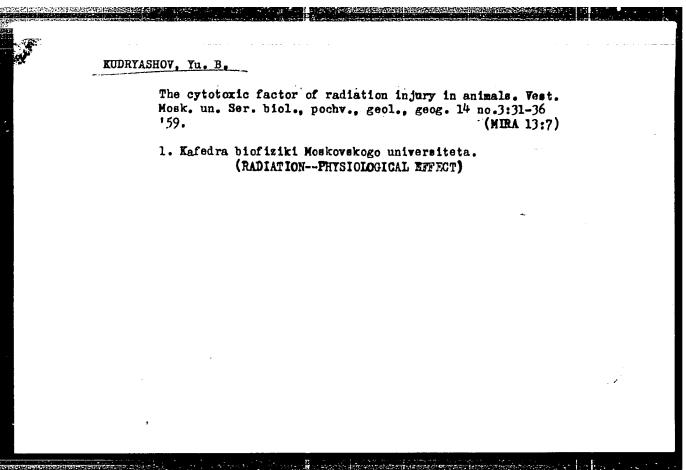>   (GAMMA RAYS—PHYSIOLOGICAL EFFECT)

KUDRYASHOV, Yu.B.; KAKUSHKINA, M.L.

New method of determining the activity of tissular hemolysins.
nauch. dokl. vys. shkoly; biol. nauki no.4:85-89 '59.
(MIRA 12:12)

1.Rekomendovana kafedroy biofiziki Moskovskogo gosudarstvennogo
universiteta im. M.V. Lomonosova.
(HEMOLYSIS AND HEMOLYSINS)

KUDRYASHOV, Yu. B.

The cytotoxic factor of radiation injury in animals. Vest.
Mosk. un. Ser. biol., pochv., geol., geog. 14 no.3:31-36
'59.   (MIRA 13:7)

1. Kafedra biofiziki Moskovskogo universiteta.
        (RADIATION--PHYSIOLOGICAL EFFECT)

KRIGER, Yuriy Arkad'yevich; KUDRYASHOV, Yuriy Borisovich; MISHINA, Z.A.,
        red.; YERMAKOV, M.S., tekhn. red.

    [Electrokinetic phenomena in biology; lectures in a course of
    biophysics] Elektrokineticheskie iavleniia v biologii; let tsii
    po kursu biofiziki. Moskva, Izd-vo Mosk. univ., 1960. 34 p.
                                                    (MIRA 14:7)
                (Electrophysiology)

BURLAKOVA, Ye.V.; GONCHARENKO, Ye.N.; KUDRYASOV, Yu.B.

Physiochemical changes in the erythrocytes of rats in different forms of radiation injury. Nauoh.dokl.vys.shkoly: biol.nauki no.4:107-113 '60.   (MIRA 13:11)

1. Rekomendovana kafedroy biofiziki Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova i laboratoriyey fiziologii Instituta biofiziki AN SSSR.
    (ERYTHROCYTES)
    (GAMMA RAYS--PHYSIOLOGICAL EFFECT)

BURLAKOVA, Ye.V.; GONCHARENKO, Ye.N.; KUDRYASHOV, Yu.B.

Effect of cysteine on changes in the physicochemical state of erythrocytes in irradiated rats. Nauch. dokl. vys. shkoly; biol. nauki no. 1:99-102 '61.   (MIRA 14:2)

1. Rekomendovana kafedroy biofiziki Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova i laboratoriyey fiziologii Instituta biofiziki AN SSSR.
    (CYSTEINE) (ERTHROCYTES) (RADIATION PROTECTION)

KUDRYASHOV, Yu.B.; MAL'TS, V.; GONCHARENKO, Ye.N.; KAKUSHKINA, M.L.;
LOMSADZE, B.A.; SIN VEN'-DYUAN'; SYUE YUY-KHUA [Hsüeh Yü-hua];
CHZHAN CHZHEN'-LYAN'

Toxic effect of oleic acid and its oxidation products; cytotoxic
factor in radiation injury of animals. Radiobiologiia 1 no.1:78-
85 '61.   (MIRA 14:7)

1. Moskovskiy gosudarstvennyy universitet, kafedra biofiziki.
          (RADIATION—PHYSIOLOGICAL EFFECT)
            (OLEIC ACID—TOXICOLOGY)

KUDRYASHOV, Yu.B.

Toxic effect of oxidized oleic acid on yeast cells. Dokl. AN SSSR
139 no.4: 991-993 Ag '61.   (MIRA 14:7)

1. Moskovksiy gosudarstvennyy universitet im. M.V. Lomonosova.
Predstavleno akademikom V.N. Shaposhnikovym.
    (Oleic acid) (Yeast) (Gamma rays—Physiological effect)

KUDRYASHOV, Yu. B.

(d)

Radiomimetic Effect of the Oxidation Products of Unsaturated Fatty Acids in Various Biological Systems and Objects

Yu. B. Kudryashov, G. I. Gaxonov, N. N. Goncharenko,
S. P. Korolev, N. G. Labzina, B. A. Lomsadze,
Lyu Khao-tu, Syue Yul-khua and O. F. Filenko

Oxidation products of oleic acid acted *in vitro* on enzyme systems responsible for the decomposition of proteins in tissues. They inhibited the autolysis reaction. Unoxidised or weakly oxidised fatty acid increased autolysis. Ionizing radiation influences autolysis, depending on the method of irradiation, dose, and time after irradiation. It was shown that the disturbance of the autolytic decomposition of proteins in irradiated animals occurs as an indirect mechanism apparently due to toxic substances of the type of oxidised oleic acid. Peroxides of unsaturated fatty acids have some haemolytic properties. Radio-protective compounds, i.e. β-mercaptoethylamine, amino-ethylisothiuronine, cysteine and others also reduce the haemolytic properties of the oxidation products of oleic acid.

The effect of oxidation products of oleic acid on haploid and diploid yeast cells is similar to that of X-rays as judged by cell survival, formation of micro- and macro-colonies, and their form. Anoxia reduces the sensitivity of haploid cells to oxidized oleic acid. The oxygen effect is smaller than that for ionizing radiation. This suggests that the primary mechanism of radiation injury involves at least two consecutive oxidation reactions. Similar results were found in mice, rats and rabbits. The following parameters were investigated: survival, blood picture, physico-chemical properties of erythrocytes, time of coagulation and the thromboplastic activity of blood, activity of liver cathepsins, permeability of histo-haematic barriers (liver, brain, skeletal muscles), appearance of micro-necroses in bone marrow. The results suggest that oxidation products of unsaturated fatty acids, the peroxides, aldehydes and ketones (perhaps also radicals of these products) are radiomimetic. Since the substances examined may appear in organs and tissues of irradiated animals, they are particularly interesting in comparison with known radiomimetics.

Moscow State University, USSR

report presented at the 2nd Intl. Congress of Radiation Research, Harrogate/Yorkshire, Gt. Brit. 5-11 Aug 1962

KUDRYASHOV, Yu.B.

Radiomimetic properties of oxidized oleic acid. Nauch. dokl.
vys. shkoly; biol. nauki no.1:102-104 '62.   (MIRA 15:3)

1. Rokomendovana kafedroy biofiziki Moskovskogo gosudarstvennogo
universiteta im. M.V. Lomonosova.
(OLEIC ACID)
(TOXINS AND ANTITOXINS)

BURLAKOVA, Ye. V.; GONCHARENKO, Ye. N.; KUDRYASHOV, Yu. B.

Effect of oxidized oleic acid on changes in the rat erythrogram.
Nauch. dokl. vys. shkoly; biol. nauki no.3:94-96 '62.

(MIRA 15:7)

1. Rekomendovana kafedroy biofiziki Moskovskogo gosudarstvennogo
universiteta im. M. V. Lomonosova i laboratoriyey fiziologii
Instituta biofiziki AN SSSR.

(ERYTHROCYTES)   (OLEIC ACID)

KUDRYASHOV, Yu.B.; LOMSADZE, B.A.

Autolysis of liver proteins in rats after intraperitoneal introduction of oxidized oleic acid. Radiomimetic characteristics of oxidized oleic acid. Vest. Mosk. un. Ser. 6: Biol., pochv. 17 no.5:24-26 S-O '62. (MIRA 15:11)

1. Kafedra biofiziki Moskovskogo universiteta.
                    (Oleic acid)
              (Radiomimetic substances)

KUDRYASHOV, Yuriy Borisovich. Prinimali uchastiye: KOZLOV, Yu.P.;
SUMARUKOV, G.V.; TOLKACHEVA, Ye.N.; RYABCHENKO, N.V.;TARUSOV,B.N.,red.;
CHERKASOVA, V.I., red.; MURASHOVA, V.A., tekhn. red.

[Laboratory work in general biophysics in eight volumes]
Praktikum po obshchei biofizike v vos'mi vypuskakh. Pod
obshchei red. B.N.Tarusova. Moskva, Vysshaia shkola.
No.7. [Radiobiology; radiation injury of biological objects
under the effect of a single whole body X-ray or gamma ir-
radiation] Radiobiologiia; luchevoe porazhenie biologicheskikh
ob"ektov pri deistvii obshchego odnokratnogo rentgenovskogo
ili gamma-oblucheniia. 1962. 273 p.   (MIRA 16:4)
            (RADIOBIOLOGY—LABORATORY MANUALS)

GASANOV, G.I.; KUDRYASHOV, Yu.B.

      Toxic affect of intermediate products of oxidated oleic acid
      on yeast cells. Dokl. AN SSSR 143 no.6:1453-1454 Ap '62.
                                        (MIRA 15:4)

      1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
      Predstavleno akademikom N.M.Sisakyanom.
              (Oleic acid--Toxicology) (Yeast)

KUDRYASHOV, Yu.B.; GASANOV, G.I.

Role of oxygen in the effect of a radiomimetic substance (oxidized oleic acid) on yeast cells. Dokl.AN SSSR 144 no.2:443-445 My '62. (MIRA 15:5)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova. Predstavleno akademikom A.I.Oparinym.
          (Oleic acid)   (Yeast)   (Oxygen)

KUDRYASHOV, Yu.B.; GONCHARENKO, Ye.N.; SYUE YUY-KHUA [Hsüeh Yü-hua]

Effect of oxidized oleic acid on the amount of formed blood elements and changes in rat erythrograms. Nauch.dokl.vys. shkoly; biol.nauki no.2:109-114 '63. (MIRA 16:4)

1. Rekomendovana kafedroy biofiziki Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova i Laboratoriyey fiziologii Instituta biologicheskoy fiziki AN SSSR.
  (OLEIC ACID)   (BLOOD CELLS)   (RADIOMIMETIC SUBSTANCES)

KUDRYASHOV, Yu.B.; MAL'TS, V.

Primary toxic substances in radiation injury of animals; toxic
properties of oxidized oleic acid. Trudy MOIP. Otd. biol. 7:84-
92 '63.   (MIRA 16:11)

SUMARUKOV, G.V.; KUDRYASHOV, Yu.B.

Potentiometric determination of the effectiveness of the
protective action in cysteamino in mio3. Med. rad. 8 no.6:
42-44 Je '63.   (MIRA 17:4)

1. Iz Moskovskogo universiteta imeni Lomonosova.

KUDRYASHOV, Yu. B.
AID Nr. 974-9   22 May

PROTECTION AGAINST RADIOMIMETIC EFFECT OF OLEIC ACID OXIDATION PRODUCTS BY ANTIRADIATION DRUGS (USSR)

Kakushkina, M. L., N. P. Korolev, and Yu. B. Kudryashov. IN: Akademiya nauk SSSR. Doklady, v. 149, no. 4, 1 Apr 1963, 973-975.

S/020/63/149/004/024/025

The effect of cysteamine, cysteine, cystineamine, and AET on radiomimetic hemolysis, induced in γ-irradiated (100 to 1000 kr) erythrocytes by incubation with various concentrations of oxidized oleic acid, was experimentally investigated. Post-incubation erythrograms showed an increase in the number of erythrocytes and a decrease in their stability. These effects are similar to those produced by ionizing radiation damage. The addition of cysteamine eliminates these changes almost completely in the case of ionizing radiation injury. The erythrograms of erythrocytes incubated with oxidized oleic acid in the presence of cysteamine showed the latter to have a protective effect in this case as well. AET afforded the greatest protection against both radiation and

Card 1/2

AID Nr. 974-9   22 May

PROTECTION AGAINST RADIOMIMETIC EFFECT [Cont'd]   S/020/63/149/004/024/025

radiomimetic effects, while α-amine gave no protection in either case.   Cys-
tineamine gave unequal protection against radiation and radiomimetic effects.
The data indicate that the oxidation products of unsaturated fatty acids partic-
ipate in the primary radiation reactions of biological objects. Erythrograms
of the effects of radiomimetic agents are useful for rapid preliminary evalua-
tion and selection of antiradiation agents.   [AB]

Card 2/2

BURLAKOVA, Yelena Vladimirovna; VLADIMIROV, Yuriy Andreyevich;
      KOL'S, Ol'ga Romanovna; KRIGER, Yuriy Arkad'yevich;
      KUDRYASHOV, Yuriy Borisovich; LITVIN, Feliks Fedorovich;
      KOMAZYUK, Vasiliy Grigor'yevich; CHERKASOVA, V.I., red.

      [Laboratory work in biophysics] Malyi praktikum po biofizike.
      [By] E.V.Burlakova i dr. Moskva, Vysshaia shkola, 1964.
      407 p.   (MIRA 18:3)

GONCHARENKO, Ye.N.; KUDRYASHOV, Yu.B.

Mechanism of the radiomimetic effect of the oxidized oleic acid on the animal organism. Nauch. dokl. vys. shkoly; biol. nauki no. 2:88-90 '64.
(MIRA 17:5)

1. Rekomendovana kafedroy biofiziki Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova i Institutom biofiziki AN SSSR.

ACCESSION NR: AP4043219   S/0205/64/004/004/0632/0637

AUTHOR: Kakushkina, M. L.; Kudryashov, Yu. B.; Rachinskiy, F. Yu.;
Dmitriyeva, N. G.

TITLE: The use of radiomimetic (erythrocytic) models for studying
the potential radioprotectors of the thiazolidine group

SOURCE: Radiobiologiya, v. 4, no. 4, 1964, 632-637

TOPIC TAGS: radiation protection, radiomimetic model, thiazolidine,
oleinic acid, erythrocyte

ABSTRACT: Thiazolidine derivatives in 0.02-M concentrations were
selected as potential radioprotective agents. In each test, the
comparative effectiveness of mercamine on irradiated human erythro-
cytes was studied. Oxidized oleinic acid with standard toxicity was
employed as the radiomimetic agent. Preparation of the solutions
and their addition to the erythrocytes took place immediately before
the tests. It was determined that oleinic acid destroyed half the
erythrocytes in 1.5—2.0 minutes. The hemolytic activity of oleinic
acid was established after erythrocytes were washed in a potassium

Card 1/2

ACCESSION NR: AP4043219

hydroxide bath (0.05 M) and a phosphate buffer (pH 7) was added.   The
effectiveness of potential radioprotectors was evaluated as a func-
tion of decreased hemolysis rate.   The comparative ability of com-
pounds to protect against the effects of oleinic acid was established
by irradiating the erythrocytes with gamma rays from a GUT-Co-400 in
100—1000-kr doses.   The criterion for erythrocyte damage under these
conditions was the time it took to destroy half of them with respect
to the controls.   It was found that thiazolidine derivatives exerted
a protective influence against the effects of gamma radiation and
oleinic acid and that the mechanism of this influence depended upon
the character of the radicals in the displacement of hydrogen atoms.
The authors conclude that radiomimetic models can be employed for
preliminary evaluation of aminothiole-type radioprotectors or those
compounds which possess the ability to form aminothioles.   Orig.
art. has: 2 figures and 2 tables.

ASSOCIATION: none

SUBMITTED: 25Nov63   ATD PRESS: 3087   ENCL: 00

SUB CODE: LS,OC   NO REF SOV: 005   OTHER: 001

Card   2/2

BURLAKOVA, Ye.V.; GONCHARENKO, Ye.N.; KUDRYASHOV, Yu.B.

Change in the erythrograms of rats subjected to the action of embichine, ar artificial radiomimetic substance. Vest. Mosk. un. Ser. 6: Biol., poshv. 19 no.5:18-21 S-O '64.

(MIRA 17:12)

1. Kafedra biofiziki Moskovskogo universiteta.

ACCESSION NR: AP4035823   S/0020/64/156/001/0191/0193

AUTHOR: Kudryashov, Yu. B.; Baltbarzdy*s, Z.; Le Dak L'yeu

TITLE: On the possibility of an indirect effect of ionizing radiation in lipid solution. Radiolysis of beta carotene in oleic acid

SOURCE: AN SSSR. Doklady*, v. 156, no. 1, 1964, 191-193

TOPIC TAGS: beta carotene, beta carotene lipid solution, beta carotene oleic acid solution, beta carotene radiosensitivity, non linear radiosensitivity, carotene radiation stability, carotene butanol solution, carotene ether solution

ABSTRACT: Radiation-induced oxidation of the title compound was compared with radiolysis of crystalline β-carotene, and its solutions in petroleum ether and in butanol, following a single irradiation with various γ-ray doses of various carotene concentrations. The non-oxidized content of β-carotene was determined colorimetrically one minute after irradiation. The latter's effect on frozen samples (cooled in liquid nitrogen to -196C) was also tested. Only freshly prepared solutions were used throughout the experiment. The results are graphed and show crystalline carotene to have high radiation stability (11% with 1.10^4 kilo-

Card 1/3

ACCESSION NR: AP4035823

roentgen). This decreased considerably in the solutions observed, more so with oleic acid than with the other 2 solvents, the first showing non-linear, the latter linear dependency upon dose. At equal doses, decreased dose size per minute increased this radiosensitivity which also increased with increasing oleic acid oxidation. Thus, this solvent might be a useful dosimetric tool. The results also point toward the presence of active intermediate products. This view is also supported by comparing results obtained with frozen solutions and various β-carotene concentration. Frozen solutions in general showed high radiostability, which was again non-linear with the oleic acid. The dependence of butanol and ether solution reactions upon concentration was again linear. The oleic acid solutions showed a dilution effect not observed with the 2 other solvents but observed earlier for aqueous solutions, i.e. at low concentrations and equal radiation doses the number of changed molecules depends upon exposure rather than concentration. "The authors wish to thank Professor B. N. Tarusova for helping with this work. ..."The authors wish to thank E. S. Zhdanovich for placing the β-carotene at their disposal (the preparation is synthesized crystalline β-carotene; $C_{40}H_{56}$, molecular weight 536.8; maximal absorption of the petroleum ether solution

Card 2/3

ACCESSION NR: AP4035823

452 m   )." Orig. art. has: 2 figures.

ASSOCIATION: Moskovskiy gosudarstvenny*y universitet im. M. V. Lomonosova (Moscow
State University)

SUBMITTED: 22Nov63   ENCL: 00

SUB CODE: NP   NO REF SOV: 003   OTHER: 003

Card 3/3

GASANOV, G.I.; KUDRYASHOV, Yu.B.

Action of some toxic and radiomimetic substances on yeast cells.
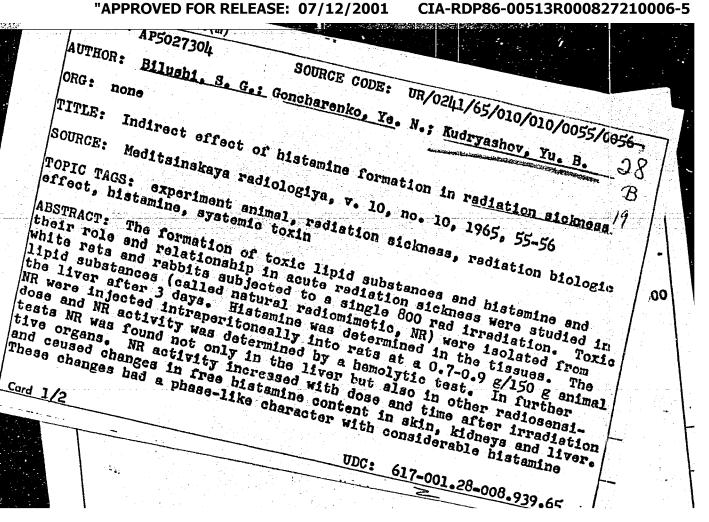Nauch. dokl. vys. shkoly; biol. nauki no.1:84-90 '65.
(MIRA 18:2)

1. Rekomendovana kafedroy biofiziki Moskovskogo gosudarstvennogo
universiteta.

DOROZHINSKIY, V.B.; KUDRYASHOV, Yu.B.; LOMOVA, M.A.

Distribution of carbon-labeled oleic acid in the animal organism.
Nauch.dokl.vys.shkoly; biol.nauki no.3:77-80 '65.

(MIRA 18:8)

1. Rekomendovana kafedroy biofiziki Moskovskogo gosudarstvennogo
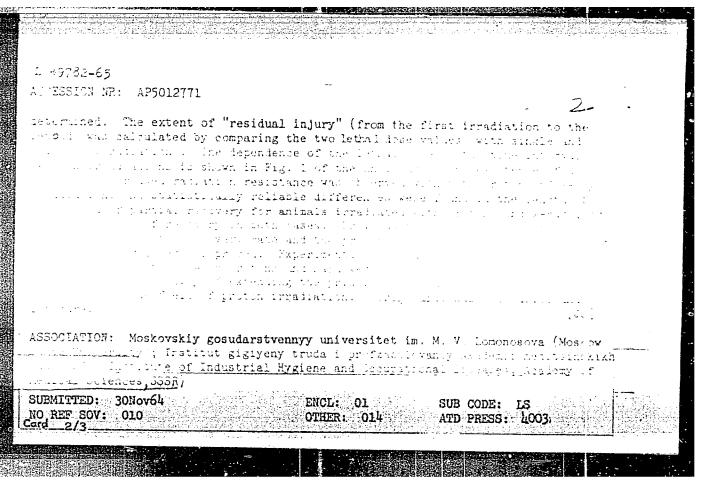universiteta.

AP5027304

AUTHOR: Bilushi, S. G.; Goncharenko, Ya. N.; Kudryashov, Yu. B.

SOURCE CODE: UR/0241/65/010/010/0055/0056

ORG: none

TITLE: Indirect effect of histamine formation in radiation sickness

SOURCE: Meditsinskaya radiologiya, v. 10, no. 10, 1965, 55-56

TOPIC TAGS: experiment animal, radiation sickness, radiation biologic effect, histamine, systemic toxin

ABSTRACT: The formation of toxic lipid substances and histamine and their role and relationship in acute radiation sickness were studied in white rats and rabbits subjected to a single 800 rad irradiation. Toxic lipid substances (called natural radiomimetic, NR) were isolated from the liver after 3 days. Histamine was determined in the tissues. The NR were injected intraperitoneally into rats at a 0.7-0.9 g/150 g animal dose and NR activity was determined by a hemolytic test. In further tests NR was found not only in the liver but also in other radiosensitive organs. NR activity increased with dose and time after irradiation and caused changes in free histamine content in skin, kidneys and liver. These changes had a phase-like character with considerable histamine

Card 1/2

UDC: 617-001.28-008.939.65

BURLAKOVA, Ye.V.; GONCHARENKO, Ye.N.; KUDRYASHOV, Yu.B.

Comparative toxic effect of histamine and the product of oxidation of oleic acid on the blood. Vest. Mosk. un. Ser. 6: Biol., pochv. 20 no.6:9-12 N-D '65.

(MIRA 19:1)

1. Kafedra biofiziki Moskovskogo gosudarstvennogo universiteta. Submitted November 17, 1964.

L 49782-65   EWT(m)
ACCESSION NR: AP5012771

UR/0020/65/161/006/1448/145-

AUTHOR: Konoplyannikov, A. G.; Kudryashov, Yu. B.; Yarmonenko, S. P.

TITLE: Effectiveness of recovery of mice following their exposure to 660-Mev protons

SOURCE: AN SSSR. Doklady, v. 161, no. 6, 1965, 1448-1450

TOPIC TAGS: proton irradiation, mouse, lethal dose, radiation sickness, radiation recovery

ABSTRACT: Experiments were conducted to determine the postradiation recovery of animals after irradiation with x-rays and 660-Mev protons. The experimental an- imals were 960 male white mice, weighing 19—22 g. They were irradiated with 660-Mev protons on a synchrocyclotron (dose power 300—400 rad/min) and with x-rays on a 180-kv unit (dose power 30 rad/min). The degree of radiation injury was determined by calculating the 50% lethal dose for 30 days after irradiation. After this preliminary determination, two large groups of mice were irradiated with half the lethal does (580 and 295 rad, respectively, for protons and x-rays). Two, 6, 13, and 20 days after this primary irradiation, groups of 120—150 mice received an additional dose of x-rays, and the lethal dose after secondary irradiation was

Card   1/3

L 49782-65

ACCESSION NR: AP5012771

2-

determined. The extent of "residual injury" (from the first irradiation to the
... was calculated by comparing the two lethal dose values with single and
... The dependence of the ...
... is shown in Fig. 1 of the ...
... radiation resistance was ...
... statistically reliable differen... ... the ...
... partial recovery for animals irradiat... ...
... in both cases. ...
... with male and fe... ...
... prot... Experiment...
... ...
... ...
... of proton irradiation. ...

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow
...; Institut gigiyeny truda i profzabolevaniy ...
... of Industrial Hygiene and Occupational ... Academy of
... Sciences, SSSR)

SUBMITTED: 30Nov64	ENCL: 01	SUB CODE: LS	
NO REF SOV: 010	OTHER: 014	ATD PRESS: 4003	
Card 2/3			

L 28905-66   EWT(1)/EWT(m)   SCTB   DD

ACC NR: AP6019162   (A,N)   SOURCE CODE: UR/0325/66/000/001/0087/0089

AUTHOR: Bulushi, S. G.; Goncharenko, Ye. N.; Kudryashov, Yu. B.

ORG: Department of Biophysics, Moscow State University im. M. V. Lomonosov (Kafedra biofiziki Moskovskogo gosudarstvennogo universiteta)

TITLE: Effect of "natural radiomimetics," ionizing radiation and vibration on variation in the level of histamine in rat tissues

SOURCE: Nauchnyye doklady vysshey shkoly. Biologicheskiye nauki, no. 1, 1966, 87-89

TOPIC TAGS: histamine, ionizing radiation, rat

ABSTRACT: The article presents the results of experimental verification of the authors' hypothesis that the histamine content in animals varies as a result of "natural radiomimetics," toxic substances formed as a result of radiation, and results of a study of the comparative effect of various agents — chemical (natural radiomimetics) and physical (radiation and vibration) — on variation in the content of free histamine in animal tissues. Preparations of natural radiomimetics evoked reliable changes in the content of free histamine in the tissues studied: skin, kidneys, and liver. These changes are phased: in the initial period of injury, after injection of natural radiomimetics, there is a sharp increase in histamine content, and in the terminal period there is a drop in the free histamine level below the norm. There is a similarity in dynamics of the free histamine level as a

Card 1/2

L 28905-66

ACC NR: AP6019162

result of natural radiomimetics, the oxidation products of oleic acid, and
ionizing radiation. It has been proved experimentally possible to increase
the histamine content in animal tissues with natural radiomimetics. Vibra-
tion is also capable of causing a change in the free histamine level. The
increase resulting from vibration is brief and subsequently the norm is re-
established. Orig. art. has: 2 tables. [JPRS]

SUB CODE: 06 / SUBM DATE: 06May65 / ORIG REF: 003

Card 2/2

L 29836-66   EWT(m)

ACC NR: AP6012874   SOURCE CODE: UR/0205/66/006/002/0272/0277 $2\frac{7}{8}$

AUTHOR: Kudryashov, Yu. B.; Kakushkina, M. L.; Mekhtiyeva, S. M.; Rachinskiy, F. Yu.; Sumarukov, G. V.; Filenko, O. F.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Comparative evaluation of the protective activity of potential radioprotective agents (Bunte salts) on various biological models

SOURCE: Radiobiologiya, v. 6, no. 2, 1966, 272-277

TOPIC TAGS: radioprotective agent, radiation biologic effect, experiment animal, mouse, blood

ABSTRACT: It has been postulated that the aminoalkylthiosulfuric acids or Bunte salts can be hydrolized in vivo to yield radioprotective aminoalkylthiols. In order to confirm this and develop a means of testing potential radioprotective agents against in vitro models, the activity of 7 of these salts was compared with that of 3 known radioprotective agents in male white mice irradiated with 200 — 1000 rad, and in intact human erythrocytes,

Card 1/3   UDC: 577.391:628.58

L 29836-66

ACC NR: AP6012874

Radio-protective agents		Chemical formula	Mice			% protection compared to β-mercaptoethylamine				chemical model oxidation of β-carotene
						yeast cells		erythrocytes		
			1	2	3	4	5	6	7	
							8	0.01M	0.02M	0.02M
Amino-thiols	1	H₂NС₂H₄SH	200	100	−14±1.19	100 (0.8)	100 (1.1)	100 (1.1±0.1)	100 (1.0±0.2)	100 (5.0±0.3)	100
	2	H₂NС₂H₄S–C	250	80	−103±7.0	100	100	100 (3.1±0.1)	—	100 (5.0±0.4)	11
Amino-disulfide base salts	3	H₂NС₂H₄S–S / H₂NС₂H₄S–S	350	100	−150±11.1	100	100	100 (1.1±0.1)	—	50 (2.5±0.3)	—
	4	H₂NС₂H₄S₂SO₃H	500	93	−110±13.7	30	75	—	40 (1.8±0.1)	2.5 (1.1±0.09)	Preparation were insoluble in the samples
	5	ClₓSₓNС₂H₄S₂SO₃H	200	74	−80±6.4	35	55	—	80 (7.1±0.2)	30 (0.5±0.13)	
	6	C–N(С₂H₄S₂SO₃H)	—	—	—	—	—	—	80 (7.8±0.1)	30 (0.7±0.15)	
	7	H₂N–C(С₂H₄S₂SO₃H)	500	66	−72±1.7	30	75	—	—	—	
	8	ClₓCₓNС₂H₄S₂SO₃H	500	33	−65±4.8	—	—	—	30 (1.6±0.2)	5.0 (1.2±0.05)	8
	9	ClₓCₓNС₂H₄Cl S₂SO₃H	300	30	−35±4.6	30	45	—	30 (1.8±0.3)	5.0 (1.2±0.1)	8
	10	HₓCⁱNС₂H₄S₂SO₃H	—	—	—	20	15	—	—	—	—

1 – Maximal tolerated dose of the preparation (mg/kg); 2 – Survival to 30 days after irradiation with 700 r, %; 3 – ΔE of mouse tissue (mv) 25–30 min. after inj. of the preparation; 4 – radiation model; 5 – radiomimetic model; 6 – radiation model (300 kr); 7 – radiomimetic model; 8 – concentration of each preparation is 0.02 M; 9 – Concentration of the preparations.

Note: The numbers in parentheses indicate the absolute value of the protective coefficient,

representing the ratio $\dfrac{t_{50\%\,(a)}}{t_{50\%\,(k)}}$ for the erythrocyte models and the ratio $\dfrac{S_{D_{50(a)}}}{S_{D_{50(k)}}}$ for the

yeast models, where t_{50} = time for 50% hemolysis, $S_{D_{50}}$ = survival of colonies in % at dose

D_{50}, (a) indicates addition of a radioprotective agent, and (k) indicates control, i.e. without the addition of a radioprotective agent.

Card 2/3

L 29836-66

ACC NR: AP6012874   O

haploid yeast cells (Zygosaccharomyces bailii), or solutions of β-carotene irradiated with 1000 rad/min; the protective agents were injected intraperitoneally 25 — 30 min before irradiation or added to the suspension 1 — 5 min before irradiation or addition of a radio-mimetic agent. The results shown in the   table indicate that compounds can be tested for radioprotective activity in in vitro systems, but that prolonged contact is re-quired. Orig. art. has: 1 table, 1 figure, and 2 formulas.   [08]

SUB CODE: 06/ SUBM DATE: 05Aug64/ ORIG REF: 009/ OTH REF: 001/ ATD PRESS: 5.013

Card 3/3 fi/

L 31096-66   EWT(a)

ACC NR: AP6022781   SOURCE CODE: UR/0301/66/012/002/0147/0150

AUTHOR: Kakushkina, M. L.; Kudryashov, Yu. B.; Sivkova, V. G.; Skulachev, V. P.

ORG: Biological-Soil Faculty, Moscow State University im. M. V. Lomonosov (Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo universiteta)

TITLE: Mechanism of disturbance of oxidative phosphorylation in irradiated animal tissues

SOURCE: Voprosy meditsinskoy khimii, v. 12, no. 2, 1966, 147-150

TOPIC TAGS: radiation biologic effect, phosphorylation, rabbit, oxidation, fatty acid, oxidation, kinetics, oleic acid, cell physiology, biologic respiration, reaction mechanism

ABSTRACT: Experimental evidence previously presented indicated that the oxidation products of fatty acids possess radiomimetic properties and are highly reactive compounds which cause the development of pathologic processes in an irradiated organism. It may be assumed that the formation of these active compound have a definite effect on the energy mechanisms of the cells. The functional activity of mitochondria in the presence of the oxidation products of fatty acids and lipids isolated from the tissues of irradiated animals was studied. The functional activity of the mitochondria was determined by measuring the ratio of phosphorylated to free oxidation in them, the P/O ratio. Upon adding oleic acid to mitochondria, the P/O ratio dropped with an increase in acid

Card 1/2   UDC: 617-001.28-008.921.8-092

L 31096-66

ACC NR: AP6022781

concentration. Analysis of the results of individual measurements of the rates of oxidation and phosphorylation indicated that when the oleic acid content in the reaction mixture is increased, the phosphorylation process is suppressed. The respiration rate of mitochondria remained constant in a wide range of concentrations but decreased with very high contents of oleic acid.

The inhibition of phosphorylation in conjunction with respiration was also observed in the acetone fraction of lipids from rabbit liver irradiated with a dose of 1,000 roentgens. Thus, in the tissues of the irradiated animals, compounds of the lipid nature are present which inhibit the oxidative phosphorylation process. The addition of serum albumin considerably activates oxidative phosphorylation. The conjugating effect of albumin confirms the fact that the disruption of phosphorylation caused by the lipids in the liver of irradiated animals depends on the presence of free unsaturated fatty acids. Orig. art. has: 3 figures. /JPRS/

SUB CODE: 06 / SUBM DATE: 30Aug64 / ORIG REF: 008 / OTH REF: 006

Card 2/2

L 38902-66   EWT(m)

ACC NR: AP6029553   (A)   SOURCE CODE: UR/0321/66/027/002/0145/0162

AUTHOR: Konoplyannikov, A. G.; Kudryashov, Yu. B.

ORG: Department of Biophysics, Faculty of Biology and Soil Science, Moscow State University (Kafedra biofiziki biologo-pochvennogo fakul'teta Moskovskogo gosudarstvennogo universiteta)

TITLE: Biological effect of high-energy protons, fission neutrons, gamma- and x-rays on animals

SOURCE: Zhurnal obshchey biologii, v. 27, no. 2, 1966, 145-162

TOPIC TAGS: radiation biologic effect, physiologic parameter, experiment animal, blood, radiation sickness, gastrointestinal tract, circulatory system

ABSTRACT: The authors conducted experiments to study the biological effect of 660 Mev protons, cobalt-60 gamma rays, x-rays with a maximum voltage of 180 kv, and fission neutrons. The high-energy proton source used was the synchrocyclotron of the Nuclear Problems Laboratory of the Joint Institute for Nuclear Research (Dubna). The fission-neutron source was an IBR-type atomic reactor of the Neutron Physics Laboratory of the same institute. The gamma-ray source was the GUT Co-400. The x-ray source was the RUT-3-20-200. The experimental animals were mice and rats of mixed strains and chinchillas. The indices employed were: mortality of the animals, changes in body weight and the weight of individual organs (spleen,

UDC: 577.391

Card 1/3

L 38902-66

ACC NR: AP6029553

small intestine, testicles), changes in the number of leukocytes in the blood and the number of bone marrow cells, erythrogram changes, changes in the autolysis rate, certain changes in the lipids (the formation of lipid radiotoxins), and postradiation recovery in the mice.

A comparison of various manifestations of radiation damage to animals exposed to ionizing radiation with various values of the linear energy transfer (LET) confirms the similarity of the biological effect of 660 Mev protons, x- and gamma-irradiation, and fission neutrons. This similarity is manifested by the radiation damage caused by different forms of radiation in lethally equivalent doses (taking the RBE calculated according to $LD_{50/30}$) and is found primarily in the study of changes in the hemopoietic organs and blood picture. No substantial differences were found in the level of initial changes or in the dynamics of the subsequent development of radiation damage or in the postradiation recovery effect in the case of a nonlethal radiation dose. The phenomenon of elevated radioresistance observed after nonlethal doses of irradiation is assumed to reflect the state of hyperfunction of radiosensitive

Card 2/3

L 38902-66

ACC NR: AP6029553

(primarily the hemopoietic) organs which occurs during the recovery process. The intestinal form of damage was found to be more pronounced in the case of densely ionizing radiation than in the case of sparsely ionizing radiation. The change in the correlation between the radiosensitivity of the hemopoietic organs and that of the intestine is believed to express the general radiobiological regularity that with an increase in the LET there is a decrease in differences in the radiosensitivity of individual organs and tissues. The RBE values obtained for animal mortality in the experiments can be described by the empirical formula $RBE \approx 0.7 + 0.06$ LET, where therapeutic x-rays are taken as a standard radiation with $RBE = 1.0$ and the LET value is taken in units of kev/μ.

Orig. art. has: 3 figures and 8 tables. [JPRS: 36,932]

SUB CODE: 06 / SUBM DATE: 13Sep65 / ORIG REF: 060 / OTH REF: 035

Card 3/3

18. 8400

8156

$3/146/60/003/05/13/01$

B019/B054

AUTHORS: Gorodinskiy, G. M., Kudryashov, Yu. I.

TITLE: Reflectometer for the Control of Roughness of Ground Metal Surfaces

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniya, 1960, Vol. 3, No. 3, pp. 104 - 107

TEXT: The reflectometer described here is intended for controlling plane and cylindrical surfaces produced by external grinding machines. The control is based on the assumption that the surface is an irregular, reflecting diffraction grating (Fig. 1). The quality of surface is judged by the intensity of the photographic or photoelectric diffraction images. In the instrument described, the light beam falls under 85° on the surface to be investigated, and is reflected. The optical equipment is discussed with the aid of the sketch in Fig. 1; Fig. 2 shows a photograph of the entire device. Steel samples produced by the Vsesoyuznyy nauchno-issledovatel'skiy institut shlifovaniya i abrazivov (All-Union Scientific Research Institute of Grinding and Abrasives) were used in

Card 1/2

Reflectometer for the Control of Roughness $5/146/60/003/03/15/017$
of Ground Metal Surfaces   B019/B054

testing the suitability of the instrument described. A table list shown
which show that the instrument is highly sensitive. Some indications as
to the applicability of the instrument are given. The publication of
this article was recommended by the Kafedra spektral'nykh i optiko-
fizicheskikh priborov (Chair of Spectral and Optical and Physical
Instruments). There are 3 figures, 1 table, and 3 Soviet references.

ASSOCIATION: Leningrad institut tochnoy mekhaniki i optiki
               (Leningrad Institute of Precision Mechanics and Optics)

SUBMITTED: February 2, 1960

Card 2/2

GORODINSKIY, G.M.; KUDRYASHOV, Yu.V.

Photometer for checking the cleanliness of the surfaces of
polished industrial glass and mirrors. Stek. i ker. 19 no.7:
16-17 Jl '62. (MIRA 15:7)
(Photometers) (Glass—Testing) (Mirrors)

ACC NR: AP6035900   (A)   SOURCE CODE: UR/0413/66/000/020/0141/0142

INVENTOR: Dmitriyev, V. M.; Kudryashova, A. A.

ORG: none

TITLE: Vibration stand for testing aircraft-undercarriage shock struts. .Class 42, No. 187369

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 141-142

TOPIC TAGS: aircraft landing gear, aircraft test, shock strut, ~~~~~~~~~ test stand

ABSTRACT: An Author Certificate has been issued for a vibration stand for testing aircraft-undercarriage shock struts, which consists of a base, a housing in which to mount the part being tested, a pneumatic loading device with guide rails, and an electric motor. In order to closely simulate an aircraft's roll after landing on an unpaved airfield, it includes a console-type table to which vibration is transmitted by an electric motor through a crank and connecting-rod mechanism; the use of a flywheel provides attenuated vibrations to the above-mentioned table after the electric motor has been switched off. Orig. art. has: 1 figure.

SUB CODE: 01/ SUBM DATE: 04Jan65/

Card 1/1   UDC: 620.178

PROROKOV, N.I.; KONOVALOVA, L.I.; KUDRYASHOVA, A.A.

Experience in the use of the new methods for fabric finishing.
Tekst. prom. 24 no.3:58-61 Mr '64. (MIRA 17:9)

1. Direktor Ivanovskogo khlopchatobumazhnogo kombinata imeni F.N.
Samoylova (for Prorokov). 2. Zaveduyushchiy khimicheskoy laboratoriyey
Ivanovskogo khlopchatobumazhnogo kombinata (for Konovalova). 3. Nachal'-
nik opytno-proizvodstvennoy laboratorii Ivanovskogo khlopchatobuma-
zhnogo kombinata (for Kudryashova).

MEL'NIKOV, B.N.; PROROKOV, N.I.; KUDRYASHOVA, A.A.

Experience in the use of organic solvents in the dyeing of cotton
fabrics with sulfide dyes. Izv. vys. ucheb. zav.; tekh. tekst. prom.
no.1:152-157 '65.
                                                        (MIRA 18:5)

1. Ivanovskiy khimiko-tekhnologicheskiy institut i Ivanovskiy
khlopchatobumazhnyy kombinat.

PROROKOV, N.J.; KUDRYASHOVA, A.A.; RYVKINA, Ye.N.

Use of active dyes in resist printing as bottom for insoluble hydroxyazo dyes. Tekst. prom. 25 no.8:63-66 Ag '65.
(MIRA 18:9)

1. Direktor Ivanovskogo khlopchatobumazhnogo kombinata imeni Samoylova (for Prorokov). 2. Nachal'nik opytno-proizvodstvennoy laboratorii Ivanovskogo khlopchatobumazhnogo kombinata imeni Samoylova (for Kudryashova) 3. Starshiy inzhener-khimik Ivanovskogo khlopchatobumazhnogo kombinata imeni Samoylova (for Ryvkina).

KUDRYASHOVA, A.I.

   Miniature microscope. Avt.dor. 22 no.12:31 D '59.
                (MIRA 13:4)

    (Poland--Microscope)

KUDRYASHOVA, A.I., inzh.

Using data from petrographic studies in the evaluation of
the quality of aggregates of heavy and lightweight concrete.
Sbor. trud. VNIINSM no.8:154-161 '63.   (MIRA 17:9)

FADEYEVA, V... dr. takhn. nauk; KUDRYASHOVA, A.I., inzh.; SIROTKINA, N.L., inzh.

Method of studying the porosity of cement stone. Sbor. trud. VNIINSM no.8:176-183 '63.   (MIRA 17:9)

KUDRYASHOVA, A. YA.

Kudryashova, A. Ya. — "Age Peculiarities of the Electrical Activity of the Human Cerebral Cortex." Leningrad State Pedagogical Inst, Leningrad, 1955 (Dissertation for Degree of Candidate of Biological Sciences).

SO; Knizhnaya Letopis', No. 23, Moscow, June, 1955, pp. 87-104.

SADIKOVA, N.V.; KUDRYASHOVA, G.K.

Characteristics of brain proteins in rats of different ages according to their content of dicarboxylic and N-terminal amino acids. Nerv. sist. no.5:16-21 '64.

(MIRA 18:3)

1. Laboratoriya khimii belka Leningradskogo gosudarstvennogo universiteta.

GALUSHKO, A.I.; KUDRYASHOVA, G.L.

Ferns of the Kabardino-Balkar A.S.S.R. Uch. zap. Kab.-Balk. gos.
un. no. 14:31-43'62.   (MIRA 16:6)
        (KABARDINO-BALKAR A.S.S.R.—FERNS)

KLYUKINA, N.G.; KUDRYASHOVA, G.M.

Effect of dehydration on the physicochemical properties of nickelous hydroxide. Zhur.prikl.khim. 36 no.3:495-500 My '63.
(MIRA 16:5)

(Nickel hydroxides)   (Dehydration (Chemistry))

U

COUNTRY   : USSR
CATEGORY   : General Problems of Pathology. Immunity

ABS. JOUR.   : RZBiol., No. 12 1958, No. 56219

AUTHOR   : Kudryashova, K. I.
INST.
TITLE   : The Role of the Conditioned Reflex in the Forma-
               tion of Immune Reactions of the Organism

ORIG. PUB.   : Collection: Osnovy Immuniteta, Moscow, 1956,
               177-184

ABSTRACT   : In experiments using 4 rabbits with the method of
               Dolin and Krylov, it was shown that a conditioned
               reflex rise in the titer of agglutins (TA) and in
               the phagocytic activity of the leukocytes (PAL)
               may occur following the injection of vaccine made
               with enteric or typhoid bacilli, the immunologic
               reaction being sustained for a long period of time
               (40 to 147 days). In rabbits immunized with typh-
               oid vaccine, the TA was increased 4 fold following
               the conditioned stimulation, and the PAL 8 fold.
               For the formation of a conditioned reflex, repeat-
               ed combined presentations of the conditioned and

CARD: 1/2

ZHITOVA, Ye.I.; KUDRYASHOVA, K.I.

Effect of cortisone on typhoid bacteria infections in immune
animals. Zhur.mikrobiol., epid. i immun. 42 no.2:27-31 F '65.
(MIRA 18:6)

1. Gor'kovskiy meditsinskiy institut imeni Kirova.

KUDRYASHOVA, K.I., Cand Med Sci -- (diss) "Conditional reflex reproduction of the protective reactions of the organism)" Gor'kiy, 1958, 10 pp (Gor'kiy State Med Inst im S.M. Kirov) 20 copies (KL, 27-58, 117)

- 210 -

KUDRYASHOVA, K. YE.

Wheat

Biological improvement of spring wheat seed. Sel. i sem. 19 no. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, June 1952. Unclassified.

KUDRYASHOVA, L. A.

KUDRYASHOVA, L. A.: "The use of plane systems of collineation for solving
the problems of geometry, the kinematics of collinearaltered systems, and
nomography." Moscow, 1955. Min Education RSFSR. Moscow Oblast Pedagogical Inst.
(Dissertation for the Degree of Candidate of Physicomathematical Sciences)

SO: Knizhnaya Letopis' No. 47, 19 November 1955. Moscow.

CHUBAROV, G.S.; DAVYDOV, I.V.; ZOLOTAREV, N.N.; GULYAYENKO, S.I.;
      PILIPENKO, P.P.; KUDRYASHOVA, L.A.; ROGULINA, A.M.

[Recommended number of workers in plants producing clay bricks]
Tipovye shtaty rabochikh zavodov glinianogo kirpicha. Moskva,
1959. 221 p.   (MIRA 15:2)

1. Gosudarstvennyy proyektnyy institut po proyektirovaniyu zavo-
dov stroitel'nykh materialov. 2. Normativno-issledovatel'skiy
otdel Gosudarstvennogo proyektnogo instituta po proyektirova-
niyu zavodov stroitel'nykh materialov(for all).
               (Brick industry)

KUDRYASHOVA, L. I. (Prof.)

"Generalization of the Theory of Thermal Regularity."

report presented at the 13th Scientific Technical Conference of the Kuybyshev Aviation Institute, March 1959.